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(54) **ELECTRONICALLY KEYED DISPENSING SYSTEMS AND RELATED METHODS UTILIZING NEAR FIELD FREQUENCY RESPONSE**

(75) Inventors: **Aaron R. Reynolds**, Canton, OH (US);
Mark E. Rosenkranz, Parma, OH (US);
Paul Waterhouse, Hamilton (CA)

(73) Assignee: **Joseph Kanfer**, Richfield, OH (US)

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Primary Examiner—Kevin P Shaver

Assistant Examiner—Melvin A Cartagena

(74) *Attorney, Agent, or Firm*—Renner Kenner Greive Bobak
Taylor & Weber

(57) **ABSTRACT**

A dispensing system is disclosed which utilizes an electronically powered key device and/or identification code associated with a refill container to preclude the need for mechanical keys. The system utilizes a near field frequency response to determine whether a refill container is compatible with a dispensing system. In particular, the refill container is provided with a coil terminated by one of a number of capacitors. The container is received in a housing that provides a pair of coils that are in a spatial relationship with the installed refill container's coil. By energizing one of the housing's coils, the other coil detects a unique electronic signature generated by the container's coil. If the signature is acceptable, the dispensing system is allowed to dispense a quantity of material. The system also provides a unique latching mechanism to retain the container and ensure positioning of all the coils.

8 Claims, 14 Drawing Sheets

